

FIGURE 1

1 GAACCAGCCT GCACGCGCTG GCTCCGGGTG ACAGCCGCGC GCCTCGGCCA
 51 GGATCTGAGT GATGAGACGT GTCCCCACTG AGGTGCCCCA CAGCAGCAGG
 101 TGTTGAGCAT GGGCTGAGAA GCTGGACCGG CACCAAAGGG CTGGCAGAAA
 151 TGGGCGCCTG GCTGATTCTT AGGCAGTTGG CGGCAGCAAG GAGGAGAGGC
 201 CGCAGCTTCT GGAGCAGAGC CGAGACGAAG CAGTTCTGGA GTGCCTGAAC
 251 GGCCCCCTGA GCCCTACCCG CCTGGCCCAC TATGGTCCAG AGGCTGTGGG
 301 TGAGCCGCCT GCTGCGGCAC CGGAAAGCCC AGCTCTTGCT GGTCAACCTG
 351 CTAACCTTTG GCCTGGAGGT GTGTTTGGCC GCAGGCATCA CCTATGTGCC
 401 GCCTCTGCTG CTGGAAGTGG GGGTAGAGGA GAAGTTCATG ACCATGGTGC
 451 TGGGCATTGG TCCAGTGCTG GGCCTGGTCT GTGTCCCGCT CCTAGGCTCA
 501 GCCAGTGACC ACTGGCGTGG ACGCTATGGC CGCCGCCGGC CCTTCATCTG
 551 GGCAGTGTCC TTGGGCATCC TGCTGAGCCT CTTTCTCATC CCAAGGGCCG
 601 GCTGGCTAGC AGGGCTGCTG TGCCCGGATC CCAGGCCCCCT GGAGCTGGCA
 651 CTGCTCATCC TGGGCGTGGG GCTGCTGGAC TTCTGTGGCC AGGTGTGCTT
 701 CACTCCACTG GAGGCCCTGC TCTCTGACCT CTTCCGGGAC CCGGACCACT
 751 GTCGCCAGGC CTACTCTGTC TATGCCTTCA TGATCAGTCT TGGGGGCTGC
 801 CTGGGCTACC TCCTGCCTGC CATTGACTGG GACACCAGTG CCCTGGCCCC
 851 CTACCTGGGC ACCCAGGAGG AGTGCCTCTT TGGCCTGCTC ACCCTCATCT
 901 TCCTCACCTG CGTAGCAGCC AACTGCTGG TGGCTGAGGA GGCAGCGCTG
 951 GGCCCCACCG AGCCAGCAGA AGGGCTGTGG GCCCCCTCCT TGTCGCCCCA
 1001 CTGCTGTCCA TGCCGGGCCC GCTTGGCTTT CCGGAACCTG GGCGCCCTGC
 1051 TTCCCCGGCT GCACCAGCTG TGCTGCCGCA TGCCCCGCAC CCTGCGCCGG
 1101 CTCTTCGTGG CTGAGCTGTG CAGCTGGATG GCACTCATGA CCTTCACGCT
 1151 GTTTTACACG GATTTTCGTGG GCGAGGGGCT GTACCAGGGC GTGCCCAGAG
 1201 CTGAGCCGGG CACCGAGGCC CGGAGAACT ATGATGAAGG CGTTCGGATG
 1251 GGCAGCCTGG GGCTGTTCTT GCAGTGCGCC ATCTCCCTGG TCTTCTCTCT
 1301 GGTCATGGAC CGGCTGGTGC AGCGATTCGG CACTCGAGCA GTCTATTTGG
 1351 CCAGTGTGGC AGCTTTCCCT GTGGCTGCCG GTGCCACATG CCTGTCCCAC
 1401 AGTGTGGCCG TGGTGACAGC TTCAGCCGCC CTCACCGGGT TCACCTTCTC

FIGURE 1 – continued

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1451 AGCCCTGCAG ATCCTGCCCT ACACACTGGC CTCCCTCTAC CACCGGGAGA
1501 AGCAGGTGTT CCTGCCCAAA TACCGAGGGG ACACTGGAGG TGCTAGCAGT
1551 GAGGACAGCC TGATGACCAG CTTCTTGCCA GGCCCTAAGC CTGGAGCTCC
1601 CTTCCCTAAT GGACACGTGG GTGCTGGAGG CAGTGGCCTG CTCCCACCTC
1651 CACCCGCGCT CTGCGGGGCC TCTGCCTGTG ATGTCTCCGT ACGTGTGGTG
1701 GTGGGTGAGC CCACCGAGGC CAGGGTGGTT CCGGGCCGGG GCATCTGCCT
1751 GGACCTCGCC ATCCTGGATA GTGCCCTTCT GCTGTCCCAG GTGGCCCCAT
1801 CCCTGTTTAT GGGCTCCATT GTCCAGCTCA GCCAGTCTGT CACTGCCTAT
1851 ATGGTGTCTG CCGCAGGCCT GGGTCTGGTC GCCATTTACT TTGCTACACA
1901 GGTAGTATTT GACAAGAGCG ACTTGGCCAA ATACTCAGCG TAGAAAACTT
1951 CCAGCACATT GGGGTGGAGG GCCTGCCTCA CTGGGTCCCA GCTCCCCGCT
2001 CCTGTTAGCC CCATGGGGCT GCCGGGCTGG CCGCCAGTTT CTGTTGCTGC
2051 CAAAGTAATG TGGCTCTCTG CTGCCACCCT GTGCTGCTGA GGTGCGTAGC
2101 TGCACAGCTG GGGGCTGGGG CGTCCCTCTC CTCTCTCCCC AGTCTCTAGG
2151 GCTGCCTGAC TGGAGGCCTT CCAAGGGGGT TTCAGTCTGG ACTTATACAG
2201 GGAGGCCAGA AGGGCTCCAT GCACTGGAAT GCGGGGACTC TGCAGGTGGA
2251 TTACCCAGGC TCAGGGTTAA CAGCTAGCCT CCTAGTTGAG ACACACCTAG
2301 AGAAGGGTTT TTGGGAGCTG AATAAACTCA GTCACCTGGT TTCCCATCTC
2351 TAAGCCCCTT AACCTGCAGC TTCGTTTAAT GTAGCTCTTG CATGGGAGTT
2401 TCTAGGATGA AACACTCCTC CATGGGATTT GAACATATGA AAGTTATTTG
2451 TAGGGGAAGA GTCCTGAGGG GCAACACACA AGAACCAGGT CCCCTCAGCC
2501 CACAGCACTG TCTTTTTGCT GATCCACCCC CCTCTTACCT TTTATCAGGA
2551 TGTGGCCTGT TGGTCCTTCT GTTGCCATCA CAGAGACACA GGCATTTAAA
2601 TATTTAACTT ATTTATTTAA CAAAGTAGAA GGAATCCAT TGCTAGCTTT
2651 TCTGTGTTGG TGTCTAATAT TTGGGTAGGG TGGGGGATCC CCAACAATCA
2701 GGTCCTTGA GATAGCTGGT CATTGGGCTG ATCATTGCCA GAATCTTCTT
2751 CTCCTGGGGT CTGGCCCCC AAAATGCCTA ACCCAGGACC TTGGAAATTC
2801 TACTCATCCC AAATGATAAT TCCAAATGCT GTTACCCAAG GTTAGGGTGT

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FIGURE 1 - continued

2851 TGAAGGAAGG TAGAGGGTGG GGCTTCAGGT CTCAACGGCT TCCCTAACCA
2901 CCCCTCTTCT CTTGGCCCAG CCTGGTTCCC CCCACTTCCA CTCCCCTCTA
2951 CTCTCTCTAG GACTGGGCTG ATGAAGGCAC TGCCCCAAAT TTCCCCTACC
3001 CCCAACTTTC CCCTACCCCC AACTTTCCCC ACCAGCTCCA CAACCCTGTT
3051 TGGAGCTACT GCAGGACCAG AAGCACAAAG TGCGGTTTCC CAAGCCTTTG
3101 TCCATCTCAG CCCCCAGAGT ATATCTGTGC TTGGGGAATC TCACACAGAA
3151 ACTCAGGAGC ACCCCCTGCC TGAGCTAAGG GAGGTCTTAT CTCTCAGGGG
3201 GGGGTTTAAG TGCCGTTTGC AATAATGTCG TCTTATTTAT TTAGCGGGGT
3251 GAATATTTTA TACTGTAAGT GAGCAATCAG AGTATAATGT TTATGGTGAC
3301 AAAATTAAAG GCTTTCTTAT

FIGURE 2

1 MVQRLWVSRL LRHRKAQLLL VNLLTFGLEV CLAAGITYVP PLLLEVGVVEE
51 KFMTMVLGIG PVLGLVCVPL LGSASDHWRG RYGRRRPFIW ALSLGILLSL
101 FLIPRAGWLA GLLCPDPRPL ELALLILGVG LLDFCGQVCF TPLEALLSDL
151 FRDPDHCRQA YSVYAFMISL GGCLGYLLPA IDWDT~~S~~ALAP YLGTQEECLF
201 GLLTLIFLTC VAATLLVAEE AALGPTEPAE GLSAPSLSPH CCPCRARLAF
251 RNLGALLPRL HQLCCRMPT LRRLFVAELC SWMALMTFTL FYTDFVGEGL
301 YQGVPRAEFG TEARRHYDEG VRMGSGLGLFL QCAISLVFSL VMDRLVQRF
351 TRAVYLASVA AFPVAAGATC LSHSVAVVTA SAALTGFTFS ALQILPYTLA
401 SLYHREKQVF LPKYRGDTGG ASSED~~S~~LMTS FLPGPKPGAP FPNGHV~~G~~GAGG
451 SGLLPPPPAL CGASACDVSV RVVVGEPTEA RVVPGRGICL DLAILDSAFL
501 LSQVAPSLFM GSIVQLSQSV TAYMVSAAGL GLVAIYFATQ VVFDKSDLAK
551 YSA

FIGURE 3

DcSUT2 1 MENGTKELNKPQPPSSAAMQLQTPVQKIPTATWKLVLVAAIAAGVQFGWA 50
PROST03 1MVQRLWVSRLLRHRKAQLLLLVNLLTFGLEVCLA 33
51 LQLSLLTPYVQLLGIPHKWAAYIWLCGPISGMLVQPIVGYYSDHCQSSFG 100
34 AGITYVPPLLLLEVGVEEKFMTMVLGIGPVLGLVCVPLLGSASDHWRGRYG 83
101 RRRPFIASGAGCVAISVILIGFAADISYKAGDDMSKTLKPRAVTVFVIGF 150
84 RRRPFIWALSGLILLSLFLIPRAGWLAGLLCPDP....RPLELALLILGV 129
151 WILDVANNMLOGPCRALLADLCSGDTRMRSANAFYSFFMAVGNILGYAA 200
130 GLLDFCGQVCFTPLEALLSDLFR.DPDHCRQAYSVYAFMISLGGCLGYLL 178
201 GSYN.NLYKLFPPFSKTHACDLYCANLKSCFIISIALIIITVVALSVVRE 249
179 PAIDWDTALAPYLGTQECLFGLLTLIFLTCVAATLLVAEEAALGPTEP 228
250 NSGPPDDADAAEPPSSGKIPV..FGELLGALKDL....PRPMLLLLIIVT 293
229 AEGLSAPSLSPHCCPCRARLAFRNLGALLPRLHQLCCRMPRTLRLRFVAE 278
294 CLNWIAWFPPFILFDTDWMGREIYGGT.....AGQGLYDQGVRAALGL 337
279 LCSWMALMTFTLFYTFVGEGLYQGVPRAEPTARRHYDEGVRMGSLGL 328
338 LLNSVVLGLTSAIVEYLVRGVGVKILWGFVNFILAIGLVMTVVVSQVAQ 387
329 FLQCAISLVFSLVMDRLVQRFQTRAV.....YLA SVAAFPVAA 366
388 HQREHSANGQLLPPSAGVKAGALSLSILGIPLSITYSIPFALASIYSSG 437
367 GATCLSHSVAVVTASAALTGFTFSALQILPYTLASLYHREKQVFLPKYRG 416
438 SGAGQGLSLGVLNLAIVVPQMIVSVLAGPFDLSFGGGNLPAFVVGAISAA 487
417 DTGGASSEDSLMTSFLPGPKPGAPFPNGHVGAGGSGLLPPPPALCGASAC 466
488 ISGVLAIVLLPKPSKDAASKLSLSGTYH..... 515
467 DVSVRVVVGEPTARVVPGRGICLDLAILDSAFLLSQVAPSLFMGSIVQL 516

1000
900
800
700
600
500
400
300
200
100
0

FIGURE 4

GAACCAGCCTGCACGCGCTGGCTCCGGGTGACAGCCGCGCGCTCGGCCAGGATCTGAGT
1 -----+-----+-----+-----+-----+-----+-----+ 60
CTTGGTTCGGACGTGCGCGACCGAGGCCACTGTGCGCGCGCGAGCCGGTCCTAGACTCA

GATGAGACGTGTCCCCACTGAGGTGCCCCACAGCAGCAGGTGTTGAGCATGGGCTGAGAA
61 -----+-----+-----+-----+-----+-----+-----+ 120
CTACTCTGCACAGGGGTGACTCCACGGGGTGTCTGTCGTCACAACTCGTACCCGACTCTT

GCTGGACCGGCACCAAAGGGCTGGCAGAAATGGGCGCCTGGCTGATTCCCTAGGCAGTTGG
121 -----+-----+-----+-----+-----+-----+-----+ 180
CGACCTGGCCGTGGTTTCCCGACCGTCTTTACCCGCGGACCGACTAAGGATCCGTCAACC

CGGCAGCAAGGAGGAGAGGCCGAGCTTCTGGAGCAGAGCCGAGACGAAGCAGTTCTGGA
181 -----+-----+-----+-----+-----+-----+-----+ 240
GCCGTCGTTCTCTCTCCGGCGTCGAAGACCTCGTCTCGGCTCTGCTTCGTCAAGACCT

GTGCCTGAACGGCCCCCTGAGCCCTACCCGCTGGCCCACTATGGTCCAGAGGCTGTGGG
241 -----+-----+-----+-----+-----+-----+-----+ 300
CACGGAATTGCCGGGGGACTCGGGATGGGCGGACCGGGTGATACCAGGTCTCCGACACCC

c M V Q R L W V -

TGAGCCGCTGCTGCGGCACCGGAAAGCCAGCTCTTGCTGGTCAACCTGCTAACCTTTG
301 -----+-----+-----+-----+-----+-----+-----+ 360
ACTCGGCGGACGACGCCGTGGCCTTTTCGGGTCGAGAACGACCACTTGGACGATTGGAAC

c S R L L R H R K A Q L L L V N L L T F G -

GCCTGGAGGTGTGTTTGGCCGAGGCATCACCTATGTGCCGCTCTGCTGTGGAAGTGG
361 -----+-----+-----+-----+-----+-----+-----+ 420
CGGACCTCCACACAAACCGCGCTCCGTAGTGATACACGGCGGAGACGACGACCTTCACC

c L E V C L A A G I T Y V P P L L L E V G -

GGGTAGAGGAGAAGTTTCATGACCATGGTGTGGGCATTGGTCCAGTGCTGGGCCTGGTCT
421 -----+-----+-----+-----+-----+-----+-----+ 480
CCCATCTCTCTTCAAGTACTGGTACCACGACCCGTAACCAGGTCACGACCCGGACACAGA

c V E E K F M T M V L G I G P V L G L V C -

GTGTCCCGCTCCTAGGCTCAGCCAGTGACCACTGGCGTGGACGCTATGGCCGCCGCCGGC
481 -----+-----+-----+-----+-----+-----+-----+ 540
CACAGGGCGAGGATCCGAGTCGGTCACTGGTGACCGCACCTGCGATACCGGCGGCGGCCG

c V P L L G S A S D H W R G R Y G R R R P -

CCTTCATCTGGGCACTGTCTTGGGCATCCTGCTGAGCCTCTTTCTCATCCAAGGGCCG
541 -----+-----+-----+-----+-----+-----+-----+ 600
GGAAGTAGACCCGTGACAGGAACCCGTAGGACGACTCGGAGAAAGAGTAGGGTTCCTGGC

c F I W A L S L G I L L S L F L I P R A G -

GCTGGCTAGCAGGGTGTGTGCCCCGATCCCAGGCCCTGGAGCTGGCACTGCTCATCC
601 -----+-----+-----+-----+-----+-----+-----+ 660
CGACCGATCGTCCCACGACACGGGCCCTAGGGTCCGGGGACCTCGACCGTGACGAGTAGG

c W L A G L L C P D P R P L E L A L L I L -

TGGGCGTGGGGCTGCTGGACTTCTGTGGCCAGGTGTGCTTCACTCCACTGGAGGCCCTGC
661 -----+-----+-----+-----+-----+-----+-----+ 720
ACCCGCACCCCGACGACCTGAAGACACCGGTCCACACGAAGTGAGGTGACCTCCGGGACG

c G V G L L D F C G Q V C F T P L E A L L -

FIGURE 4 – continued

TCTCTGACCTCTTCCGGGACCCGGACCACTGTGCGCCAGGCCTACTCTGTCTATGCCTTCA
 721 -----+-----+-----+-----+-----+-----+-----+ 780
 AGAGACTGGAGAAGGCCCTGGGCCTGGTGACAGCGGTCCGGATGAGACAGATACGGAAGT
 C S D L F R D P D H C R Q A Y S V Y A F M -
 TGATCAGTCTTGGGGGCTGCCTGGGCTACCTCCTGCCTGCCATTGACTGGGACACCACTG
 781 -----+-----+-----+-----+-----+-----+ 840
 ACTAGTCAGAACCCCGACGACCCGATGGAGGACGGACGGTAAGTACCCCTGTGGTCAC
 C I S L G G C L G Y L L P A I D W D T S A -
 CCCTGGCCCCCTACCTGGGCACCCAGGAGGAGTGCCTCTTTGGCCTGCTCACCCCTCATCT
 841 -----+-----+-----+-----+-----+-----+ 900
 GGGACCGGGGATGGACCCGTGGGTCTCTCCTACGAGAAACCGACGAGTGGGAGTAGA
 C L A P Y L G T Q E E C L F G L L T L I F -
 TCCTCACCTGCGTAGCAGCCACACTGCTGGTGGCTGAGGAGGCAGCGTGGGCCCCACCG
 901 -----+-----+-----+-----+-----+-----+ 960
 AGGAGTGGACGCATCGTCGGTGTGACGACCACTCCTCCGTGCGGACCCGGGTGGC
 C L T C V A A T L L V A E E A A L G P T E -
 AGCCAGCAGAAGGGCTGTGCGCCCCCTCCTTGTGCGCCCACTGCTGTCCATGCCGGGCCC
 961 -----+-----+-----+-----+-----+-----+ 1020
 TCGGTGCTCTTCCCGACAGCCGGGGAGGAACAGCGGGGTGACGACAGGTACGGCCCCGGG
 C P A E G L S A P S L S P H C C P C R A R -
 GCTTGGCTTTCCGGAACCTGGGCGCCCTGCTTCCCGGCTGCACCAGCTGTGCTGCCGCA
 1021 -----+-----+-----+-----+-----+-----+ 1080
 CGAACCAGAAAGGCTTGGACCCGCGGGACGAAGGGGCGACGTGGTTCGACACGACGGCGT
 C L A F R N L G A L L P R L H Q L C C R M -
 TGCCCCGACCCCTGCGCCGGCTCTTCGTGGCTGAGCTGTGACAGCTGGGACTCATGA
 1081 -----+-----+-----+-----+-----+-----+ 1140
 ACGGGGCGTGGGACGCGGCCGAGAAGCACCAGCTCGACACGTCGACCTACCGTGAGTACT
 C P R T L R R L F V A E L C S W M A L M T -
 CCTTCACGCTGTTTACACGGATTTCTGTTGGGCGAGGGGCTGTACCAGGGCGTGCCAGAG
 1141 -----+-----+-----+-----+-----+-----+ 1200
 GGAAGTGCAGACAAAATGTGCCTAAAGCACCCGCTCCCCGACATGGTCCCGCACGGGTCTC
 C F T L F Y T D F V G E G L Y Q G V P R A -
 CTGAGCCGGGCACCGAGGCCCGGAGACACTATGATGAAGGCGTTCGGATGGGCAGCCTGG
 1201 -----+-----+-----+-----+-----+-----+ 1260
 GACTCGGCCCCGTGGCTCCGGGCTCTGTGATACTACTCCGCAAGCCTACCCGTCCGACC
 C E P G T E A R R H Y D E G V R M G S L G -
 GGCTGTTCCTGCACTGCGCCATCTCCCTGGTCTTCTCTCTGGTCATGGACCGGCTGGTGC
 1261 -----+-----+-----+-----+-----+-----+ 1320
 CCCACAAGGACGTACGCGGTAGAGGGACGAGAAGAGAGACCAGTACCTGGCCGACCACG
 C L F L Q C A I S L V F S L V M D R L V Q -
 AGCGATTCCGCACTCGAGCAGTCTATTTGGCCAGTGTGGCAGCTTCCCTGTGGCTGCCG
 1321 -----+-----+-----+-----+-----+-----+ 1380
 TCGCTAAGCCGTGAGCTCGTCAGATAAACCGGTACACCGTCAAGAGGGACACCGACGGC
 C R F G T R A V Y L A S V A A F P V A A G -

FIGURE 4 - continued

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1381 GTGCCACATGCCTGTCCCACAGTGTGGCCGTGGTGACAGCTTCAGCCGCCCTCACCGGGT
-----+-----+-----+-----+-----+-----+-----+ 1440
CACGGTGTACGGACAGGGTGTACACCGGCACCACTGTCTGAAGTCGGCGGGAGTGGCCCA

C      A T C L S H S V A V V T A S A A L T G F -

1441 TCACCTTCTCAGCCCTGCAGATCCTGCCCTACACACTGGCCTCCCTCTACCACCGGGAGA
-----+-----+-----+-----+-----+-----+-----+ 1500
ACTGGAAGAGTCGGGACGTCTAGGACGGGATGTGTGACCGGAGGGAGATGGTGGCCCTCT

C      T F S A L Q I L P Y T L A S L Y H R E K -

1501 AGCAGGTGTTCTGCCCAAATACCGAGGGGACACTGGAGGTGCTAGCAGTGAGGACAGCC
-----+-----+-----+-----+-----+-----+-----+ 1560
TCGTCCACAAGGACGGGTTTATGGCTCCCTGTGACCTCCACGATCGTCACTCCTGTCCG

C      Q V F L P K Y R G D T G G A S S E D S L -

1561 TGATGACCAGCTTCTGCCAGGCCCTAAGCCTGGAGCTCCCTTCCCTAATGGACACGTGG
-----+-----+-----+-----+-----+-----+-----+ 1620
ACTACTGGTCTGAAGGACGGTCCGGGATTCTGGACCTCGAGGAAGGGATTACCTGTGCACC

C      M T S F L P G P K P G A P F P N G H V G -

1621 GTGCTGGAGGCAGTGGCCTGTCTCCACCTCCACCCGCGCTCTGCGGGGCCCTCTGCCTGTG
-----+-----+-----+-----+-----+-----+-----+ 1680
CACGACCTCCGTACCGGACGAGGGTGGAGGTGGGCGCGAGACGCCCCGAGACGGACAC

C      A G G S G L L P P P P A L C G A S A C D -

1681 ATGTCTCCGTACGTGTGGTGGTGGGTGAGCCACCGAGGCCAGGGTGGTTCCGGGCCCGGG
-----+-----+-----+-----+-----+-----+-----+ 1740
TACAGAGGCATGCACACCACCACCACTCGGGTGGCTCCGGTCCACCAAGGCCCGGGCC

C      V S V R V V V G E P T E A R V V P G R G -

1741 GCATCTGCCTGGACCTCGCCATCCTGGATAGTGCCTTCTCTGCTGTCCCAGGTGGCCCCAT
-----+-----+-----+-----+-----+-----+-----+ 1800
CGTAGACGGACCTGGAGCGGTAGGACCTATCACGGAAGGACGACAGGGTCCACCGGGGTA

C      I C L D L A I L D S A F L L S Q V A P S -

1801 CCCTGTTTATGGGCTCCATTGTCCAGCTCAGCCAGTCTGTCACTGCCTATATGGTGTCTG
-----+-----+-----+-----+-----+-----+-----+ 1860
GGGACAAATACCCGAGGTAACAGGTCGAGTCGGTCAGACAGTGACGGATATACCACAGAC

C      L F M G S I V Q L S Q S V T A Y M V S A -

1861 CCGCAGGCCTGGGTCTGGTCGCCATTTACTTTGCTACACAGGTAGTATTTGACAAGAGCG
-----+-----+-----+-----+-----+-----+-----+ 1920
GGCGTCCGGACCCAGACCAGCGGTAAATGAAACGATGTGTCCATCATAAACTGTTCTCGC

C      A G L G L V A I Y F A T Q V V F D K S D -

1921 ACTTGGCCAAATACTCAGCGTAGAAAACCTTCCAGCACATTGGGGTGGAGGGCCTGCCTCA
-----+-----+-----+-----+-----+-----+-----+ 1980
TGAACCGGTTTATGAGTCGCATCTTTGAAGGTCGTGTAACCCACCTCCCGGACGGAST

C      L A K Y S A *

1981 CTGGGTFCCAGCTCCCGCTCCTGTTAGCCCCATGGGGCTGCCGGCTGGCCGCCAGTTT
-----+-----+-----+-----+-----+-----+-----+ 2040
GACCCAGGGTCGAGGGGCGAGGACAATCGGGGTACCCCGACGGCCCGACCGGCGGTCAAA

```


FIGURE 4 - continued

2041 CTGTTGCTGCCAAAGTAATGTGGCTCTCTGCTGCCACCCTGTGCTGCTGAGGTGCGTAGC 2100
 -----+-----+-----+-----+-----+-----+-----+
 GACAACGACGGTTTCATTACACCGAGAGACGACGGTGGGACACGACGACTCCACGCATCG

 2101 TGCACAGCTGGGGGCTGGGGCGTCCCTCTCTCTCTCCCCAGTCTCTAGGGCTGCCTGAC 2160
 -----+-----+-----+-----+-----+-----+-----+
 ACGTGTGACCCCCGACCCCGCAGGGAGAGGAGAGAGGGGTGAGAGATCCCGACGGACTG

 2161 TGGAGGCCTTCCAAGGGGGTTTCAGTCTGGACTTATACAGGGAGGCCAGAAGGGCTCCAT 2220
 -----+-----+-----+-----+-----+-----+-----+
 ACCTCCGAAGGTTCCCCCAAAGTCAGACCTGAATATGTCCCTCCGGTCTTCCCGAGGTA

 2221 GCACTGGAATGCGGGGACTCTGCAGGTGGATTACCCAGGCTCAGGGTTAACAGCTAGCCT 2280
 -----+-----+-----+-----+-----+-----+-----+
 CGTGACCTTACGCCCCCTGAGACGTCCACCTAATGGGTCCGAGTCCCAATTGTGATCGGA

 2281 CCTAGTTGAGACACACCTAGAGAAGGGTTTTTGGGAGCTGAATAAACTCAGTCACCTGGT 2340
 -----+-----+-----+-----+-----+-----+-----+
 GGATCAACTCTGTGTGATCTCTTCCCAAAACCTCGACTTATTTGAGTCAGTGGACCA

 2341 TTCCCATCTCTAAGCCCCCTTAACCTGCAGCTTCGTTTAAATGTAGCTCTTGCATGGGAGTT 2400
 -----+-----+-----+-----+-----+-----+-----+
 AAGGGTAGAGATTGCGGGAATTGGACGTCGAAGCAAATTACATCGAGAACGTACCCTCAA

 2401 TCTAGGATGAAACACTCCTCCATGGGATTTGAACATATGAAAGTTATTTGTAGGGGAAGA 2460
 -----+-----+-----+-----+-----+-----+-----+
 AGATCCTACTTTGTGAGGAGGTACCCTAAACTTGTATACTTTCAATAAACATCCCCTTCT

 2461 GTCCTGAGGGGCAACACACAAGAACCCAGGTCCCCTCAGCCCACAGCACTGTCTTTTGTCT 2520
 -----+-----+-----+-----+-----+-----+-----+
 CAGGACTCCCCGTTGTGTGTTCTTGGTCCAGGGGAGTCGGGTGTCGTGACAGAAAAACGA

 2521 GATCCACCCCCCTCTTACCTTTTATCAGGATGTGGCCTGTTGGTCTTCTGTTGCCATCA 2580
 -----+-----+-----+-----+-----+-----+-----+
 CTAGGTGGGGGGAGAATGGAATAAGTCCTACACCGGACAACCAGGAAGACAACGGTAGT

 2581 CAGAGACACAGGCATTTAAATATTTAACTTATTTATTTAAACAAAGTAGAAGGAATCCAT 2640
 -----+-----+-----+-----+-----+-----+-----+
 GTCTCTGTGTCCGTAAATTTATAAATTGAATAAATAAATTGTTTCATCTTCCCTTAGGTA

 2641 TGCTAGCTTTTCTGTGTTGGTGTCTAATATTTGGGTAGGGTGGGGGATCCCCAACAATCA 2700
 -----+-----+-----+-----+-----+-----+-----+
 ACGATCGAAAAGACACAACCACAGATTATAAACCCATCCCACCCCTAGGGGTGTTAGT

 2701 GGTCCCCTGAGATAGCTGGTCATTGGGCTGATCATTGCCAGAATCTTCTTCTCTGGGGT 2760
 -----+-----+-----+-----+-----+-----+-----+
 CCAGGGGACTCTATCGACCAGTAACCCGACTAGTAACGGTCTTAGAAGAAGAGGACCCCA

 2761 CTGGCCCCCAAAATGCCTAACCCAGGACCTTGGAATTTCTACTCATCCCAAATGATAAT 2820
 -----+-----+-----+-----+-----+-----+-----+
 GACCGGGGGGTTTACGGATTGGGTCTTGAACCTTTAAGATGAGTAGGGTTTACTATTA

 2821 TCCAAATGCTGTTACCCAAGGTTAGGGTGTGAAGGAAGGTAGAGGGTGGGGCTTCAGGT 2880
 -----+-----+-----+-----+-----+-----+-----+
 AGGTTTACGACAATGGGTTCCAATCCCACAACCTCCTTCCATCTCCCACCCGAAGTCCA

 2881 CTCAACGGCTTCCCTAACCCACCCCTCTTCTCTTGGCCCAGCCTGGTTCCCCCACTTCCA 2940
 -----+-----+-----+-----+-----+-----+-----+
 GAGTTGCCGAAGGGATTGGTGGGGAGAAGAGAACCGGGTCGGACCAAGGGGGGTGAAGGT

 2941 CTCCCCTCTACTCTCTCTAGGACTGGGCTGATGAAGGCACTGCCCAAATTTCCCCTACC 3000
 -----+-----+-----+-----+-----+-----+-----+
 GAGGGGAGATGAGAGAGATCCTGACCCGACTACTTCCGTGACGGGTTTAAAGGGGATGG

FIGURE 4 - continued

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3001  CCCAACTTTCCCTACCCCCAACTTTCCCCACCAGCTCCACAACCCTGTTTGGAGCTACT
-----+-----+-----+-----+-----+-----+ 3060
GGGTTGAAAGGGGATGGGGGTTGAAAGGGGTGGTCGAGGTGTTGGGACAAACCTCGATGA

3061  GCAGGACCAGAAGCACAAAGTGCGGTTTCCCAAGCCTTGTCCATCTCAGCCCCCAGAGT
-----+-----+-----+-----+-----+-----+ 3120
CGTCCTGGTCTTCGTGTTTCACGCCAAAGGGTTCGGAAACAGGTAGAGTCGGGGGTCTCA

3121  ATATCTGTGCTTGGGGAATCTCACACAGAACTCAGGAGCACCCCCTGCCTGAGCTAAGG
-----+-----+-----+-----+-----+-----+ 3180
TATAGACACGAACCCCTTAGAGTGTGTCTTTGAGTCCTCGTGGGGGACGGACTCGATTCC

3181  GAGGTCTTATCTCTCAGGGGGGGGTTTAAGTGCCGTTTGCAATAATGTCGTCTTATTTAT
-----+-----+-----+-----+-----+-----+ 3240
CTCCAGAATAGAGAGTCCCCCCCCAAATTACGGCAAACGTTATTACAGCAGAATAAATA

3241  TTAGCGGGGTGAATATTTTATACTGTAAGTGAGCAATCAGAGTATAATGTTTATGGTGAC
-----+-----+-----+-----+-----+-----+ 3300
AATCGCCCCACTTATAAAATATGACATTCACCTCGTTAGTCTCATATTACAAATACCACTG

3301  AAAATTAAAGGCTTTCTTAT
-----+-----+ 3320
TTTTAATTTCCGAAAGAATA

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Figure 5
Expression of Prost 3 in Human Tissue

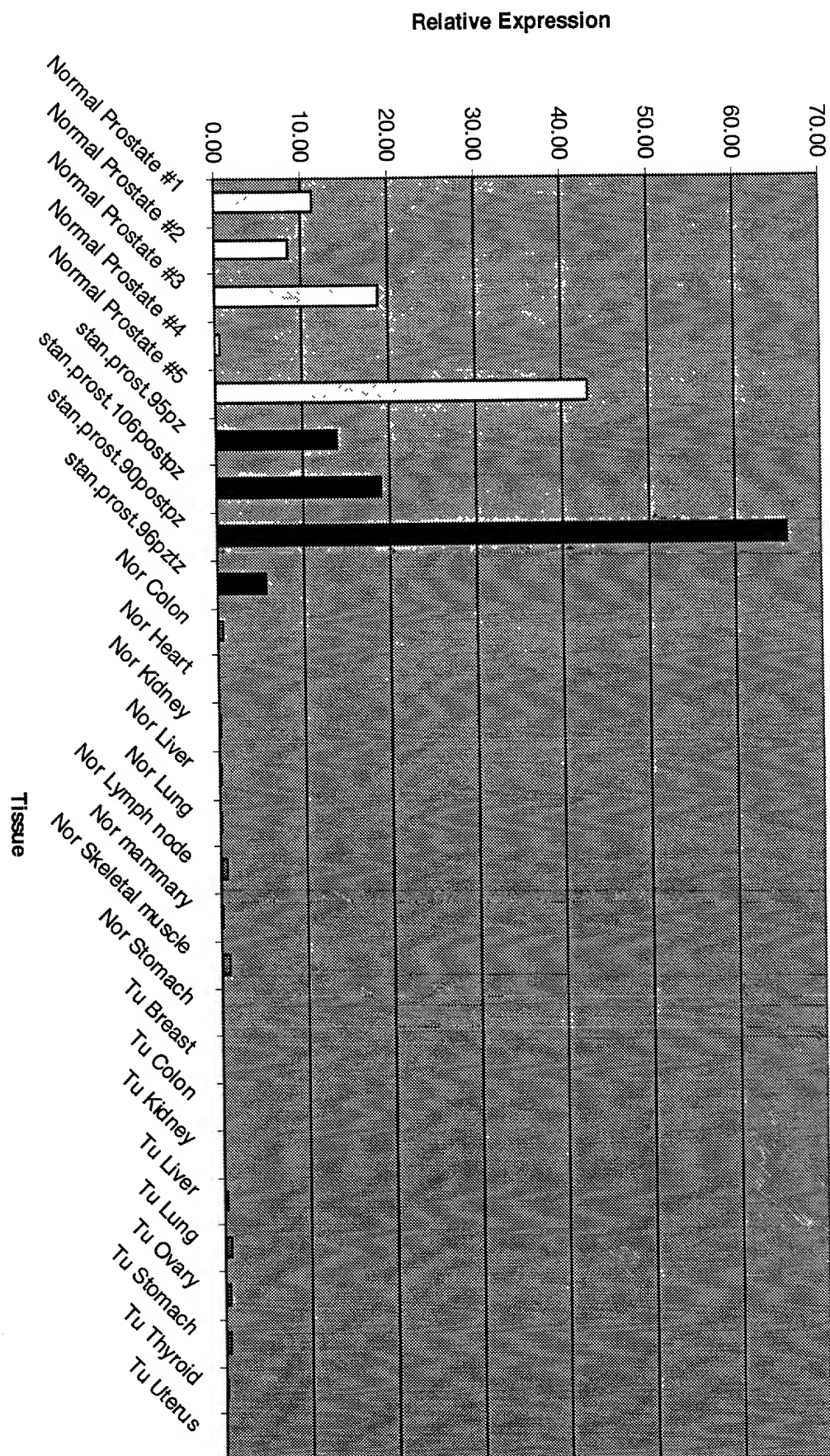
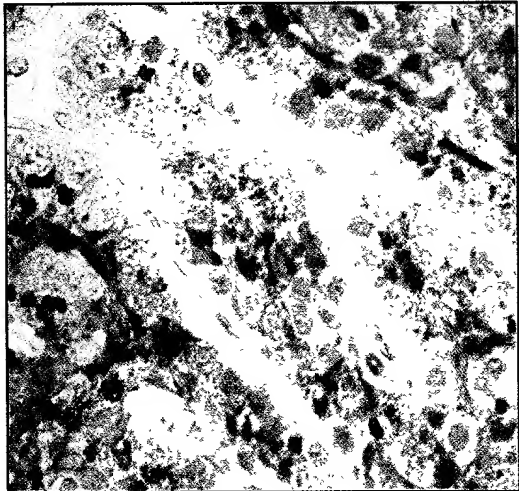


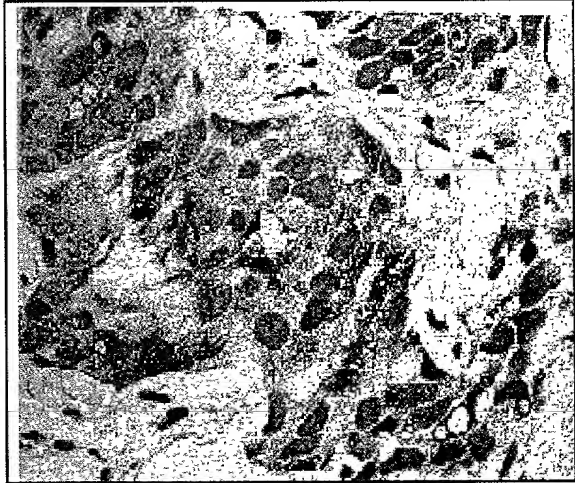
Fig. 6: Immunohistochemical staining of PROST 03 expression: PROST 03 expressing cells are shown in red.



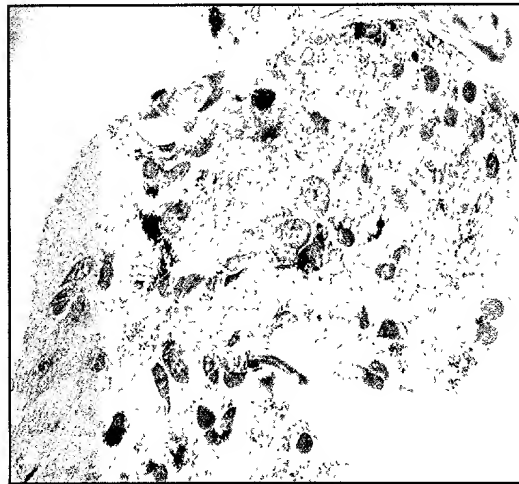
6a: Normal Prostate



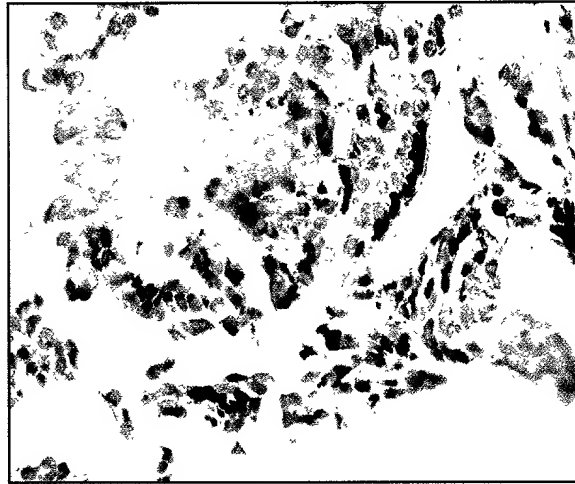
6b: Prostate Carcinoma



6c: Lymph Node, Metastatic Prostate Carcinoma



6d: Bone Marrow, Metastatic Prostate Carcinoma



6e: Bone, Metastatic Prostate Carcinoma